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FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

COLUMBUS AIR FORCE BASE 161-KV SUBSTATION AND TAP FROM WEST POINT-LOWNDES 161-KV TRANSMISSION LINE, LOWNDES COUNTY, MISSISSIPPI

The Proposed Action

The Tennessee Valley Authority (TVA) proposes to construct a new 161-kilovolt (kV) substation and the associated transmission line connection in Lowndes County, Mississippi. The new substation would be located on the site of TVA's former Regenesys facility on the south side of Columbus Air Force Base (CAFB) adjacent to TVA's existing CAFB 46-kV Substation. The proposed transmission line would connect the new substation to TVA's existing West Point-Lowndes 161-kV transmission line. The new transmission line would be approximately 3.2 miles long, constructed with H-frame steel-pole structures, and occupy a right-of-way (ROW) with a width of 100 feet and an area of approximately 38 acres. TVA would also upgrade communications facilities at its West Point 500-kV and Columbus 161-kV substations, and update the mapboard at the System Operation Center in Chattanooga. TVA has prepared an Environmental Assessment (EA) that is incorporated by reference.

Background

The purpose of the proposed action is to increase the reliability, quality, and capacity of TVA's electrical supply to CAFB and nearby portions of 4-County Electric Power Association's (EPA) service area. 4-County EPA and CAFB jointly take delivery of this power at TVA's CAFB 46/13-kV substation. This substation is supplied by the 20.7 mile long West Point-CAFB 46-kV transmission line. This line also serves 4-County EPA's Bent Tree Substation located 5 miles south of CAFB. TVA's load studies indicate that this line is approaching its capacity, and 4-County EPA has confirmed that their increasing electrical demand will likely cause the line to experience overload conditions as early as summer 2006. In addition to the overload conditions projected for the existing 46-kV transmission line serving 4-County EPA and CAFB in the near future, the base is expected to soon experience increasing reliability problems.

A previous project developed by TVA and Regenesys Ltd. was intended to address some of these problems by providing an energy storage/uninterruptible power supply facility for CAFB. For a number of reasons, construction of the Regenesys facility was ended, prior to its completion, in 2002. In early 2005, TVA determined that completion of the Regenesys facility, or its conversion into a different type of energy storage facility, is not feasible. Thus, an energy storage facility will not be available to address CAFB reliability and associated power quality problems. The proposed action would make effective use of part of the Regenesys facility site now that TVA has decided not to use that site for an energy storage facility.

Alternatives

While planning this project, TVA considered various means of improving the power supply to CAFB and 4-County EPA. In addition to the proposed action (the Preferred Alternative) and the

No Action Alternative, TVA considered other potential alternatives including upgrading the existing 46-kV facilities to operate at higher capacity and replacing the existing 46-kV line with a 161-kV transmission line and constructing a 161-kV substation. Under these two alternatives, the area would continue to be supplied by a long-single source, and the reliability problems would not be adequately addressed. Two other potential alternatives are constructing a new 161-kV substation and new 161-kV transmission line connection from either TVA's Lowndes-Columbus or West Point-Columbus No. 2 161-kV transmission line. Neither of these alternatives is preferred because they would both require the construction of a new transmission line almost three times as long as would the preferred alternative. TVA also considered upgrading the existing CAFB 46-kV substation by adding 161-kV equipment. This would have required the use of CAFB property for the substation expansion and a portion of the proposed transmission line. Because of the availability of the TVA-owned Regenesys site and concerns from the Air Force over visual impacts, this siting alternative is not preferred.

The proposed substation location and transmission line route were identified as preferred because they meet TVA's purpose and need, use part of the Regenesys site, minimize the use of CAFB property, minimize other property-ownership impacts, and minimize the length of new transmission line. The Preferred Alternative is analyzed in detail in the EA.

Impacts Assessment

The proposed substation would be built on an existing industrial site and would result in little impact to natural, cultural, or socioeconomic resources. The EA concludes that the impacts to terrestrial plant and animal communities would be insignificant. Approximately 38 acres of land would be required for the transmission line right-of-way. Much of this area is managed commercial forest and no unusual plant or animal communities are present. No impacts to federally- or state-listed endangered or threatened species, or to designated critical habitats, would occur.

The project would affect few streams, and, with implementation of standard best management practices (BMPs), impacts to aquatic life and water quality, including groundwater, would be insignificant. About 3.9 acres of wetlands, most of which are forested, would be affected. Wetlands are relatively common in the surrounding area and, with the use of BMPs and constraints on the operation of heavy equipment in wetlands, the resulting impacts to wetlands would be insignificant. None of the proposed substation would be within the 100-year floodplain. A portion of the proposed transmission line and the tap structure would be within the 100-year floodplain. TVA has determined that there is no practical alternative to siting these facilities in the floodplain and that they would not result in any increase in flood hazard.

The project is compatible with current land uses and impacts to recreation, parks, and managed areas would be insignificant. The construction of the new substation and transmission line would result in visual impacts. The most visible portions of the project, however, are located in the vicinity of existing transmission lines, the 46-kV substation, other industrial facilities, and night lighting, and overall visual impacts would be minor and insignificant. No historic or archaeological sites eligible for listing on the National Register of Historic Places would be affected and impacts to cultural resources would be insignificant. The Mississippi State Historic Preservation Officer has concurred with this determination.

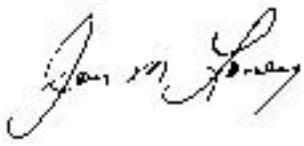
Mitigation

The siting process TVA used for the proposed substation and transmission line sought to avoid or limit potential environmental impacts. In addition to this effort, TVA would use standard measures such as the use of BMPs and other practices listed in the appendixes of the EA to minimize impacts. TVA has not identified the need for other measures to minimize environmental impacts.

Conclusion and Findings

The Final EA for this proposal concludes that construction and operation of the substation and transmission line, as well as associated minor work at other TVA facilities will not result in significant adverse impact upon the environment. This conclusion takes into account the implementation of the standard commitments such as the use of BMPs.

Environmental Policy and Planning's National Environmental Policy Act (NEPA) Administration staff reviewed the Final EA, agreed with this conclusion, and determined that the preparation of an Environmental Impact Statement is not required.



September 14, 2005

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Date Signed